



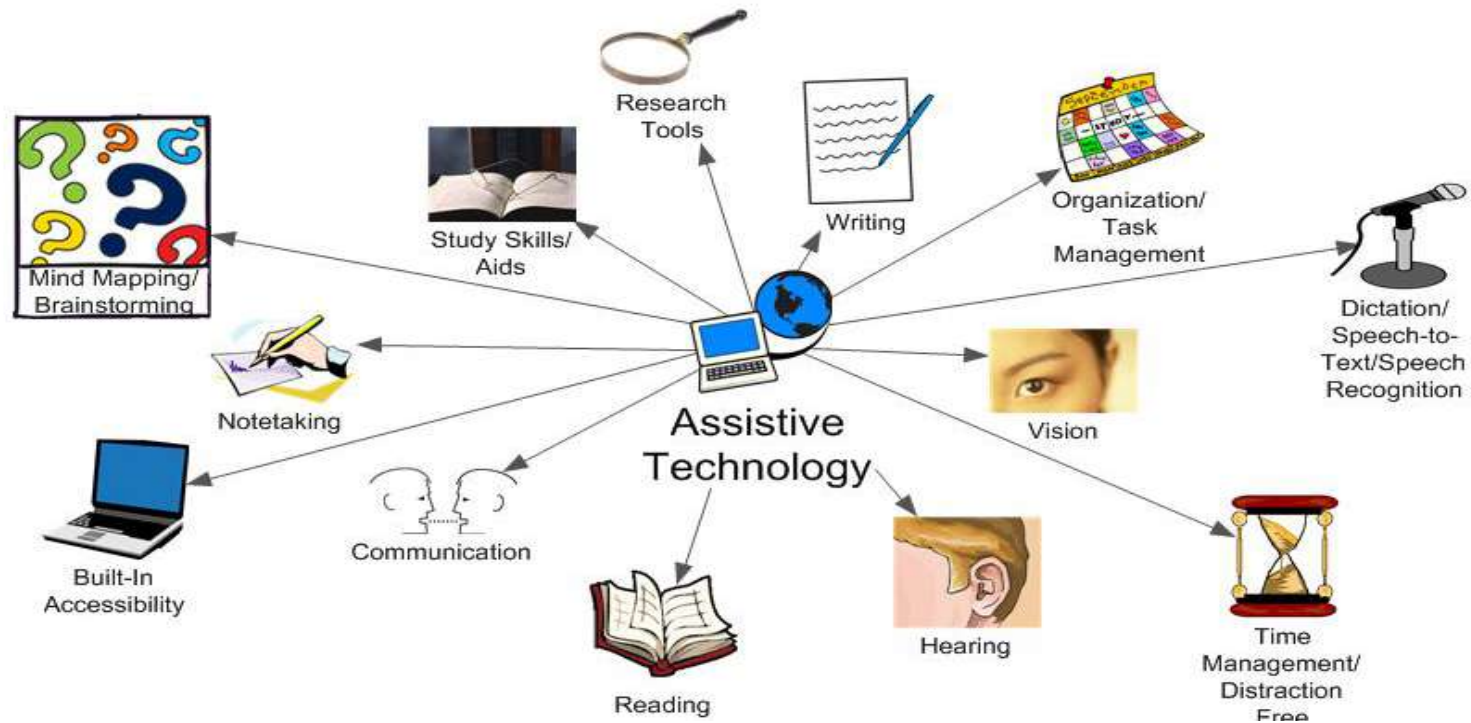
West Virginia DEPARTMENT OF
EDUCATION

OVERVIEW OF ASSISTIVE TECHNOLOGY

Capacity Building Institute - 2019

July 30, 2019

OVERVIEW OF ASSISTIVE TECHNOLOGY



PUBLIC SCHOOLS MUST COMPLY WITH ALL THREE LAWS RELATED TO ASSISTIVE TECHNOLOGY

1. Individuals with Disabilities Education Act (IDEA 2004)
2. Title II of the Americans with Disabilities Act of 1990 (ADA) (Title II)
3. Section 504 of the Rehabilitation Act of 1973 (Section 504)

ASSISTIVE TECHNOLOGY: IDEA

As stated in The Individuals with Disabilities Education Act of 2004 (IDEA) 300.308, **each school district is required to insure that assistive technology devices and services are provided if needed by a student in order to receive a free appropriate public education (FAPE).**

The **IEP Team determines whether or not the assistive technology is provided for home use** and it should be documented on the IEP.

IDEA DEFINITION OF ASSISTIVE TECHNOLOGY

- **300.308 Assistive Technology**
- Each public agency shall ensure that assistive technology devices or assistive technology services or both, as those terms are defined in 300.5 - 300.6 are made available to a child with a disability if required as a part of the child's
 - (a) Special education under 300.17;
 - (b) Related services under 300.16; or
 - (c) Supplementary aids and services under 300.550(b)(2).

IDEA DEFINITION OF ASSISTIVE TECHNOLOGY DEVICE

- **300.5 Assistive technology device**
- Assistive technology device means **any item, piece of equipment or product system, whether acquired commercially off the shelf, modified or customized**, that is used to increase, maintain or improve the **functional capabilities of a child with a disability**. The term does not include a medical device that is surgically implanted, or the replacement of such device. [Authority: 20 U.S.C. 1401(1)]

IDEA DEFINITION OF ASSISTIVE TECHNOLOGY SERVICE

- **300.6 Assistive technology services**
- **300.7**
- Any service that directly assists a child with a disability in the selection, acquisition or use of an assistive technology device. Such term includes:
 - (A) the **evaluation** of needs including a functional evaluation, in the child's customary environment;
 - (B) **purchasing**, leasing or otherwise providing for the acquisition of assistive technology devices;
 - (C) **selecting**, designing, fitting, customizing, adapting, applying, maintaining, repairing or replacing of assistive technology devices;
 - (D) **coordinating and using other therapies**, interventions or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
 - (E) **training or technical assistance for a child with disabilities**, or where appropriate that child's family; and
 - (F) **training or technical assistance for professionals (including individuals providing education and rehabilitation services)**, employers or others(s) who provide services to employ or are otherwise, substantially involved in the major life functions of that child. [Authority: 20 U.S.C. 1401(2)]

TITLE II OF THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA)(TITLE II)

- Public school students are covered, regardless of eligibility for special education.
- Schools must address auxiliary aids and services to provide effective communication for students with vision, hearing or speech disorders.
- School districts are required to inform parents of their rights.
- There are no categorical rules about what aids or services must be provided. Based on individual student need.
- Auxiliary aids and services need to be provided to ensure that communication for students with disabilities “is as effective as communication for students without disabilities.”
- Must be provided in a timely manner.
- Gives primary consideration to students and parents in determining the auxiliary aids and services.
- School needs to provide what the parent/student requests unless they can prove that a different auxiliary aid or service is effective in meeting the communication needs (school must provide the alternative). Have to provide access to communication to “participate in, enjoy the benefits of services, programs and activities of the public school district.”

SECTION 504 OF THE REHABILITATION ACT OF 1973 (SECTION 504)

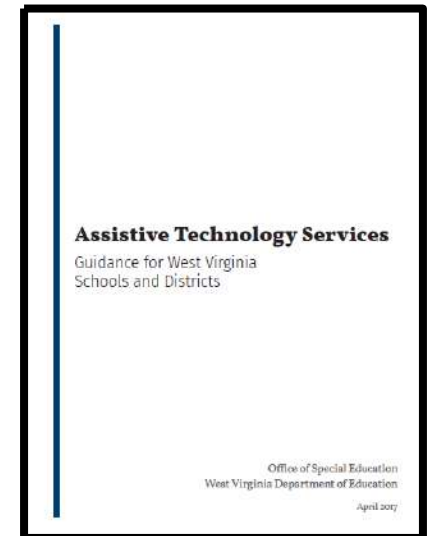
Students with disabilities are covered by Section 504 regardless of their eligibility for special education and related services.

In general, violations of Section 504 also constitute violations of Title II.

ASSISTIVE TECHNOLOGY SERVICES: GUIDANCE FOR WEST VIRGINIA SCHOOLS AND DISTRICTS

The document provides:

- Direction for school districts including “District Responsibilities”
- Forms to use during the evaluation process
- Suggestions on how to incorporate AT into the IEP
- Some resources for obtaining AT equipment



ASSISTIVE TECHNOLOGY FACT SHEET

West Virginia State Department of Education
Office of Special Education * 1-800-642-8541 * <http://wvde.state.wv.us/osp/>

Assistive Technology

Fact Sheet

Definitions:

Assistive Technology: Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified or customized, that is used to increase, maintain or improve the functional capabilities of a child with a disability.

Assistive Technology Service: Any service that directly assists a child with a disability in the selection, acquisition or use of an assistive technology device. These services may include activities, such as an assistive technology evaluation, purchasing, leasing, customizing, adapting equipment, coordinating with other team members, training or technical assistance for the child, child's family and/or other professionals.

Consideration: Every IEP Team is required to "consider" the student's need for assistive technology. This "thoughtful look" should include a brief discussion about challenges faced by the child in accessing educational goals and whether assistive technology may be helpful. The team should discuss possible assistive technology options, as well as services that may be needed.

Consideration Process Should Be:

- **Brief** - If it takes longer than 15-20 minutes, then an assistive technology evaluation should be recommended.
- **Knowledgeable** - Someone on the team should have enough knowledge of AT to represent the need for an evaluation.
- **Based on IEP Goals** - The bulk of the IEP should be developed before consideration. The annual goals that the student is expected to accomplish will be the focus of the discussion about whether assistive technology, if any, might assist or allow the student to accomplish them.
- **A Team Process** - It is important that all team members provide input. A discussion of the data resulting from strategies/techniques that have been implemented without success be reviewed prior to requesting an evaluation.
- **The AT Considerations Guide** could be completed during this time.

When to Consider AT:

- **Initial Evaluation:** The Multidisciplinary Evaluation Team may determine that an assistive technology evaluation should be recommended based on the SAT's concerns.
- **IEP:** Every time an IEP is written, assistive technology should be considered.
- **IEP Amendment:** The team may request an additional evaluation through an IEP Amendment and use of the *Request for Additional Evaluation* form.
- **Transition:** When the student transitions into the school system (from Birth to Three) or out of the school system (Division of Rehabilitation Services).

Areas To Consider:

- Seating/Positioning and Mobility
- Communication
- Computer Access
- Motor Aspects of Writing
- Composition of Written Material
- Reading
- Math
- Organization
- Recreation and Leisure
- Vision
- Hearing
- General and Daily Living Skills

Possible Team Conclusions:

- No Assistive Technology is needed.
- Current Assistive Technology is working.
- Assistive Technology Evaluation is needed.
- Assistive Technology should be trialed.
- Current Assistive Technology is not working. Team may recommend new equipment to trial or an assistive technology evaluation.
- IEP Team does not have enough information to make an informed decision: May recommend an AT evaluation or reevaluation after needed information is gathered by a knowledgeable team member.

DISTRICT RESPONSIBILITIES



Every school districts needs a knowledgeable, supportive network of people working together to help each IEP Team choose and provide appropriate AT devices and services.

1. Every school district employee who works with students with disabilities (including general education teachers) has at least an awareness-level knowledge about what assistive technology is and what it does.
2. Every employee who works with students with disabilities and has contact with parents of those students know the laws about assistive technology; knows district procedures for obtaining assistive technology and assistive technology evaluations; and knows how to initiate those procedures.
3. All administrators understand and comply with the laws related to assistive technology and expect assistive technology options to be available in all classrooms.
4. Specific individuals at both the building and district level have been designated with those responsibilities related to assistive technology and are provided the necessary training, resources and support to carry out those responsibilities.

ASSISTIVE TECHNOLOGY EVALUATION

Children should have AT recommended on the basis of an evaluation process, especially those needing augmentative communication. It should take the individual needs of the student into consideration as well as the concerns of the family and teacher.

Team process:

- Information Gathering
- Decision-Making
- Trial Use
- Recommendation and incorporation into the IEP



AREAS FOR CONSIDERATION AT IEP

- Seating, Positioning and Mobility
- Communication
- Computer Access
- Motor Aspects of Writing
- Composition of Written Materials
- Reading
- Math
- Organization
- Recreation Leisure
- Vision
- Hearing
- General and Daily Living Skills

Assistive Technology Consideration Guide

Student _____ AT Resource Person _____
 Birthdate _____ Completion Date _____

Check if Task is Relevant	Task/Category	A. Specific tasks that are difficult or impossible at expected level of independence	B. Describe special strategies, accommodations and tools currently being used to lower barriers to the task	C. Description of new or additional AT devices to be tried to increase independence	D. Home use
	Seating, Positioning & Mobility				
	Communication				
	Computer Access				
	Motor Aspects of Writing				
	Composition of Written Material				
	Reading				
	Math				
	Organization				
	Recreation & Leisure				
	Vision				
	Hearing				
	General & Daily Living Skills - Behaviors, Strengths, Learning Styles				
Does this student need assistive technology services (adapting or modifying the assistive technology, technical assistance on its operation or use, or training of student, staff, or family)? Yes ___ No ___ If yes, describe what will be provided.					
Persons Present _____ Date _____					

ASSISTIVE TECHNOLOGY EVALUATION

- If your county already has a functional process in place that addresses all areas of AT - keep on doing what you're doing.
- You may begin using the AT document and keep doing evaluations the way you've done them in the past until your team can participate in training.
- AT issues must always be addressed.

DISTANCE AT EVALUATION SUPPORT

- Double Robotics
- Provide distance support for AT and AAC evaluations
- Robots are being piloted in two locations this spring and available state-wide next fall
- Two robots – West Virginia University
Kanawha County Schools



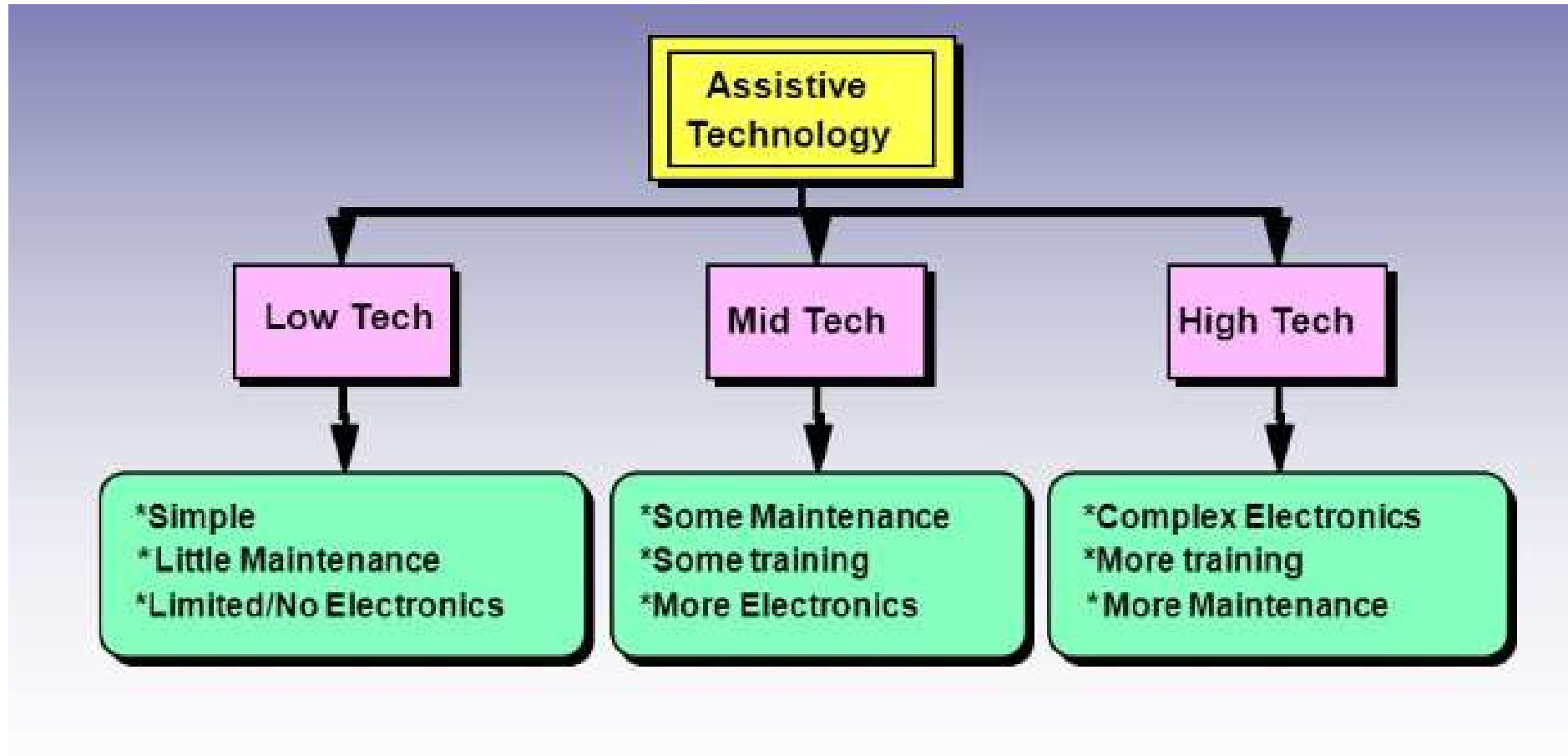
ASSISTIVE TECHNOLOGY BOOT CAMP

- Teams or individuals are trained from around the state
- Two-day training the fall and spring
- First one was in March of 2018
- Two-year cohort
- One last opportunity to join the cohort in the fall – November
- Training, materials, equipment and support provided by the AT Boot Camp Advisory Board

UPDATE TO POLICY 2419

Read IEP further defines that teachers either “must participate in the meeting to develop the student’s IEP” or read and sign the IEP (Read IEP) and “**make modifications for the student, if needed or identified, to help the student succeed in the class or program.**” (p.61)

ASSISTIVE TECHNOLOGY CONTINUUM



SEATING, POSITIONING AND MOBILITY



ASSISTIVE TECHNOLOGY Communication

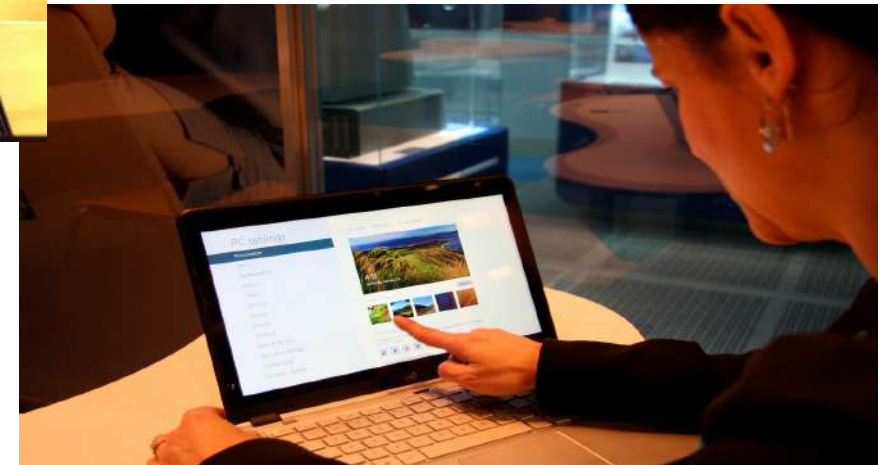


ASSISTIVE TECHNOLOGY

Computer Access



MOTOR ASPECTS OF WRITING



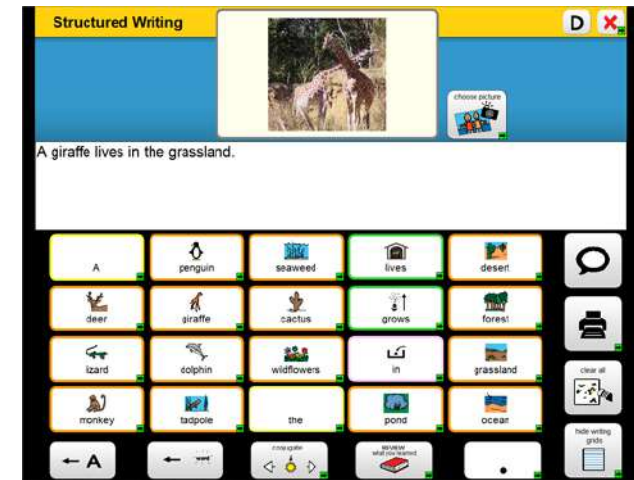
COMPOSITION OF WRITTEN MATERIAL

Writing Idea

Article ○
Blog ○
Book ○
Other ○

Title/Subject

Synopsis/Key Concepts






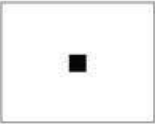
READING



1 See - Matching Animals-Level 1

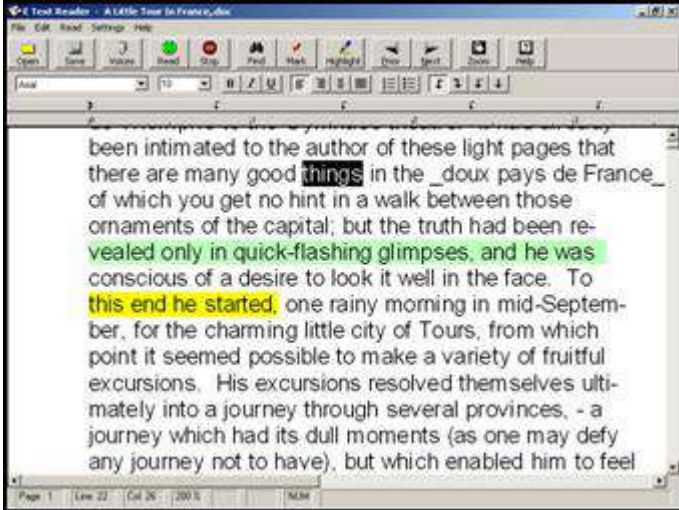
Alle2LEARN

I see a 

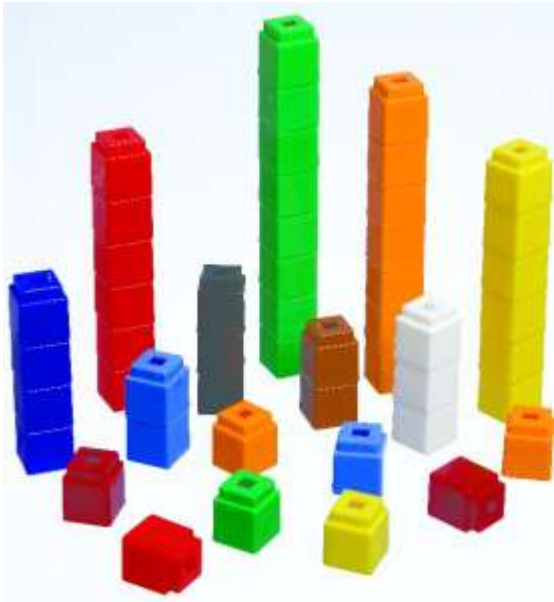
  

This is a matching exercise. It features the sentence 'I see a' followed by a box containing a clownfish. Below this are three empty boxes for the user to place the correct animal image.

www.Able2Learn.com © 2015 Able2Learn Inc. ©2015 Able2Learn Inc.



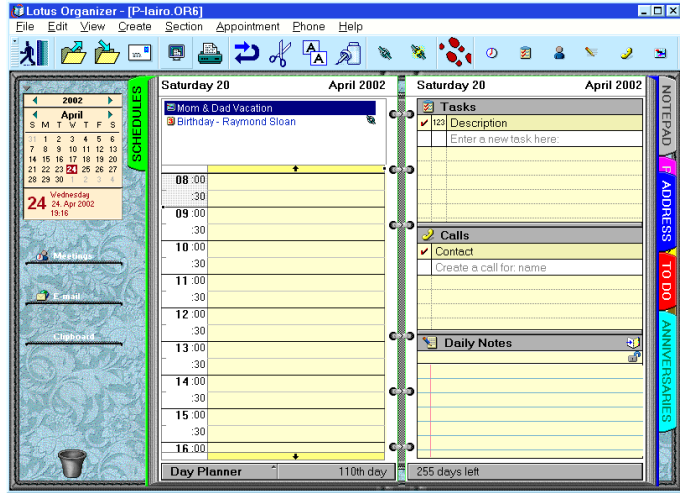
MATHEMATICS



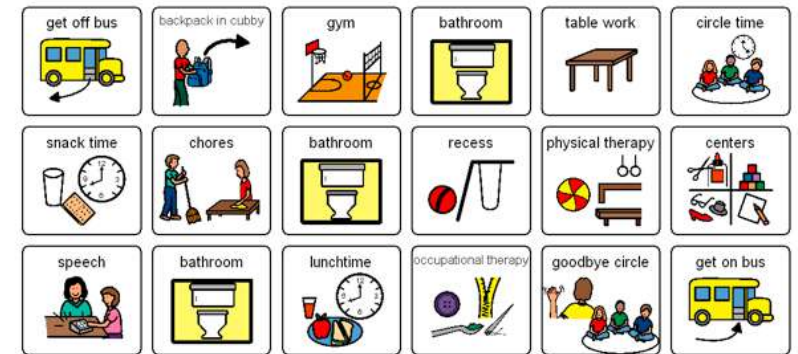
1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100



ORGANIZATION



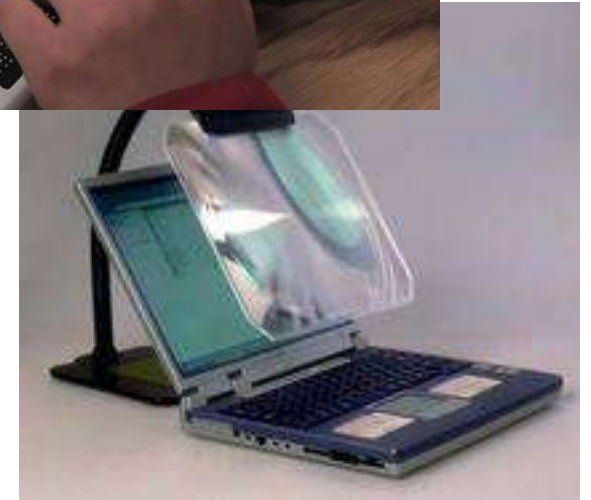
My Daily Schedule



RECREATION AND LEISURE



VISION



HEARING



Hearing Induction Loop

This section of the platform has a Hearing Induction Loop for the benefit of customers with hearing aids fitted with a 'T' switch.

Use your 'T' switch for direct transmission of announcements over the public address system.



connex **metlink**



GENERAL AND DAILY LIVING SKILLS



USING THE IPAD TO SUPPORT LEARNERS WITH PHYSICAL DIFFICULTIES

Using the iPad to Support Learners with Physical Difficulties

The iPad includes a range of built-in features to support learners with physical disabilities; **Settings, Accessibility and Interaction**. These include Assistive Touch, Switch Control, Touch Accommodations, Support for 3rd party keyboards, and Siri.

The availability of Bluetooth extends the potential for adding external devices such as accessible keyboards, switches and even joysticks.

External (Bluetooth) keyboards can also be connected to the iPad to enhance access. For example, under **Keyboard and Hardware** there are options to activate Sticky Keys and Slow Keys to help with motor difficulties when typing.

Bluetooth switches can also be connected to an iPad for learners who are unable to 'tap', 'touch' and/or 'swipe'. Assistive Touch can also replicate these pinching actions with one finger.

Touch Accommodations
Touch Accommodations can help someone who is having trouble using the screen, e.g. tapping and holding, or accidentally tapping and launching apps.

Touch Accommodations allows you to adjust the settings to change how the screen will respond to touches.

The timer can be set between 0.10 - 4.00 seconds. When an item is tapped a 'circular timer' appears acting as 'countdown'. The time can be set to suit individual preference.

Keyboard
If you find the track default on-screen keyboard difficult to use, consider using an external Bluetooth or wireless keyboard. In **Settings, Accessibility, Keyboard and Hardware Keyboards** you can customise the way the keyboard responds. For example:

- Key Repeat** - helps to avoid characters being entered multiple times with a single key press.
- Sticky Keys** - sets the Modifier keys, e.g. Shift, Ctrl, Alt, use the keyboard with one finger or hand.
- Slow Keys** - adjust the amount of time between when a key is pressed and when it is activated.

Switch Control
If you are unable to use a keyboard or a joystick, Switch Control could be a potential alternative to navigate and access the iPad. Switch Control lets you control your iPad using a single switch or multiple switches (by accessing items in rows and columns) allowing you to tap, type, and perform other tasks.

You can find Switch Control in **Settings, Accessibility and Interaction**. A switch can be attached directly using Bluetooth (i.e. the Blue 3 Switch) or indirectly using a switch interface such as the Protonic Application.

As well as using an external switch, there are also options to use the 'Screen as a Switch' (by tapping the screen) or, alternatively, the iPad's front facing Camera.

Assistive Touch
Assistive Touch helps to simplify gestures and movements such as pinching, tapping, holding and creating the Home button.

With Assistive Touch you can control many features from the screen such as the volume, screen rotation, Siri and more. You can even create personal Custom Gestures such as page turning.

Useful tip
In **Accessibility and Home Buttons** you can adjust the 'Click Speed' to double or triple click.

Accessories
Third accessories such as Bluetooth/wireless joysticks and keyboards as well as T-bar styluses, head pointers and mounts are available from:

- www.ableware.com
- www.ablekit.com
- www.ablemouse.com
- www.ablepoint.com

iPad Mounts
A range of iPad mounts and accessories are available so the iPad can be clamped to a wheelchair or securely stuck to a desk. For more information on iPad's and mounts visit: www.ablemouse.com/uk/information/mounts-and-accessories

AI Scotland

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USING THE IPAD TO SUPPORT LEARNERS WITH VISUAL DIFFICULTIES

Using the iPad to Support Learners with Visual Difficulties


There are a range of support tools for visually impaired learners within the built-in features of the iPad. These include 'Screen Reading' (VoiceOver), magnification (Zoom) and other options for increasing the size of text or changing the colour contrast (Invert Colours, Grayscale). VoiceOver and Zoom can be used together, thereby improving the accessibility of the iPad.

Other features such as 'Bold Text' and 'Button Shaper' offer subtle changes but for some, they can make a difference. 'Bold Text' enhances the font on the on-screen keyboard while 'Button Shaper' improves the clarity of navigation buttons.

Using the on-screen keyboard at high magnification levels can make typing difficult, as both the on-screen keyboard and being able to engage, i.e. hit Screen Zoom.

A high contrast Bluetooth keyboard such as the JL Frost - Back on White, Write on Black or Black on Yellow external keyboard is recommended.

The Apple Keyboard (Bluetooth) can also be used when using VoiceOver to type and maximize the built-in keyboard shortcuts to aid navigation.

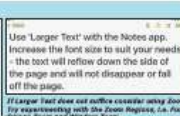



Larger Text

Consider using Larger Text (as opposed to heading straight for Zoom) as Apps that support Dynamic Type will adjust to your preferred reading size.


Use 'Larger Text' with the Notes app. Increase the font size to suit your needs - the text will follow down the side of the page and will not disappear or fall off the page.

If larger text does not suffice consider using Zoom, Full Screen Zoom and Window Zoom.





Bold Text

Use Bold Text to improve the clarity of the on-screen keyboard keys.





Zoom (Full Screen Zoom)

Full Screen Zoom magnifies the entire screen, e.g. app icons, text etc.



Window Zoom

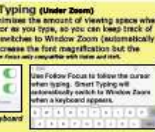

Window Zoom gives you more control over the area of the iPad you want magnified.



Follow Focus and Smart Typing (under Zoom)



Using magnification at high levels minimises the amount of viewing space when typing. Follow Focus follows the cursor as you type, so you can keep track of what is being written. Smart Typing switches to Window Zoom (automatically) when a keyboard appears. You can increase the font magnification but the keyboard remains the same size. Follow Focus only works with these and such.

Use Follow Focus to follow the cursor when typing. Smart Typing will automatically switch to Window Zoom when a keyboard appears.



Show Controller

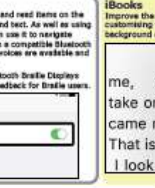

Show Controller gives quick access to Zoom Settings such as 'Zoom In/Out', 'Choose Filter', 'Reset' and switching between Zoom Window and Full Screen Zoom. The 'Show Controller' icon can be used to control or navigate the Zoom position.



VoiceOver


VoiceOver is the iPad's screen reader and reads items on the screen such as apps, button menus and text. As well as using VoiceOver to read information you can use it to navigate around the iPad and to type, although a compatible Bluetooth keyboard is recommended. Different voices are available and you can alter the speed of the voice.

VoiceOver works with a range of Bluetooth Braille Displays thereby providing audio and tactile feedback for Braille users.



iBooks

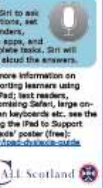
Improve the readability of eBooks by customising font size, style and background colour.



Siri

Use Siri to ask questions, set reminders, open apps, and complete tasks. Siri will read aloud the answers.

For more information on supporting learners using the iPad's text readers, customising Safari, large on-screen keyboards etc. see the Using the iPad to Support Dyslexia' poster (free): <http://www.wv.gov/education>



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SPEAK IT!

\$1.99



- A text-to-speech app, Speak It! can help your learner read or speak.
- Simply copy and paste selected text and Speak It! reads the words out loud.
- The app highlights each spoken word so that kids can more easily follow along with the text.
- Gives a non-verbal child a voice so that he or she can interact with classmates.
- Just type what you want to say and Speak It! does the rest.
- The ability to save countless phrases adds convenience by eliminating the need to type the same phrases over and over again.

ACCESSIBILITY SETTINGS ON THE IPAD

- Enable accessibility features on iPad.
 - From the Home screen, go to settings and select **General**.
 - Select **Accessibility**.
 - Select and turn on the features you want to use.
- Features address the needs of students with difficulties with
 - Vision
 - Hearing
 - Physical and Motor Skills
 - Learning and Literacy
- <https://www.apple.com/accessibility/ipad/>

RESOURCES FOR OBTAINING AT EQUIPMENT



- **WVDE Assistive Technology Funding Grant** - there is a cap on the grant so requests will have to meet the funding requirements including “unanticipated need.” <https://wvde.us/special-education/initiatives/assistive-technology/>
- **West Virginia Assistive Technology Systems (WVATS)** <https://vll.cedwvu.org/welcome.aspx> short term loans - located in Morgantown
- **Instructional Resources Center (IRC)** – Donna Brown and Mary Jo Wagner - https://www.wvsdb2.state.k12.wv.us/apps/pages/index.jsp?uREC_ID=832088&type=d&pREC_ID=1194661

GUIDED ACCESS

- Allows you to lock a program so that it can't be exited through the home key.
- Go to “**Settings**”, “**General**”, “**Accessibility**”
- Toggle on “**Guided Access**”
- The first time you do it, it will ask you to set up a passcode
- REMEMBER YOUR CODE
- Get into the program you want to use
- Touch the “home” button 3 times rapidly
- You will see a screen come up that says, “**Guided Access**” and on the top right it says “**Start**”
- When you're ready to exit the program, you simply touch the “**Home**” button 3 times rapidly, enter the passcode and press “**Stop**” in the top left corner

ASSISTIVE TECHNOLOGY FREQUENTLY ASKED QUESTIONS IN THE SCHOOLS

Are school districts required to pay for assistive technology devices and services as a part of my child's IEP? **YES**

Can school districts require parents to use their private insurance to pay for necessary assistive technology devices and or service? **NO, they can ask if you are willing to do it, but they cannot require it. It is your right to say NO.**

ASSISTIVE TECHNOLOGY FREQUENTLY ASKED QUESTIONS IN THE SCHOOLS (CONTINUED)

Do school districts have responsibility to pay for an independent educational evaluation regarding assistive technology? **YES**

Requirement in Policy 2419

Are school districts responsible for customization, maintenance, repair and replacement of assistive technology devices? **YES**

ASSISTIVE TECHNOLOGY FREQUENTLY ASKED QUESTIONS IN THE SCHOOLS (CONTINUED)

Can families be asked to purchase the devices or augment the identified assistive technology needs of their child?

Education is a shared responsibility between school, families, employers and community. It is well recognized that assistive devices and services are used across a broad spectrum. These devices and services serve functional as well as educational needs. When viewed in this manner, the possibility of joint funding is entirely appropriate as long as the parents' willingness to share the financial responsibility is voluntary. Even if the family does purchase the assistive technology device, the schools cannot mandate that the device be brought to school. Families can insist that another device be provided for school use.

WEST VIRGINIA RESOURCES

West Virginia Department of Education - 1.800.642.8541 or 304.558.2696

Contacts: Wendy Garrison wendy.garrison@k12.wv.us – Low Incidence, Deaf/Blind
Ginger Huffman vhuffman@k12.wv.us – Preschool
Lee Ann Brammer lbrammer@k12.wv.us – Speech-Language Impaired, AT and AEM
Nancy Cline nmcline@k12.wv.us – Parent Support

West Virginia Department of Health and Human Resources – WV Birth to Three Program - 1.800.642.9704 or 304.558.6311

Contacts: Pam Roush or Mel Woodcock Regina.K.Woodcock@wv.gov

West Virginia Early Childhood Resource Lending Library (ECRL) - 304.5356.4384

Contact: Raeshon Wilson rywilson1@hsc.wvu.edu

West Virginia Assistive Technology Systems (WVATS) - 1.800.841.8436

Contact: Jessi Wright jdwright@hsc.wvu.edu

West Virginia Division of Rehabilitation Services - 1.800.642.8207

<http://www.wvdrs.org>

Instructional Resources Center/AEM – 855.435.4584

Contact: Donna Brown Dnmbrown@k12.wv.us

RESOURCES FOR AT

- <http://www.summitdd.org/blog/assititive-technology-apps/>
- http://www.oneplaceforspecialneeds.com/main/resources.html#tab=resource_online&text=assistive+technology+app – listed by diagnosis
- <https://www.common sense media.org/guide/special-needs> - great links to other resources
- <https://www.specialeducationguide.com/pre-k-12/tools-and-research/7-apps-to-use-as-assistive-technology/>
- <https://www.teachthought.com/technology/34-assistive-technology-apps-from-edshelf/>
- <http://www.callscotland.org.uk/home/> - great information on all aspects of AT and many disabilities

QUESTIONS



THANK YOU!

Contact Information

Lee Ann Brammer, Speech-Language Impaired, Assistive Technology (AT)
and Accessible Educational Materials (AEM) Coordinator, WVDE

lbrammer@k12.wv.us 304.558.2696

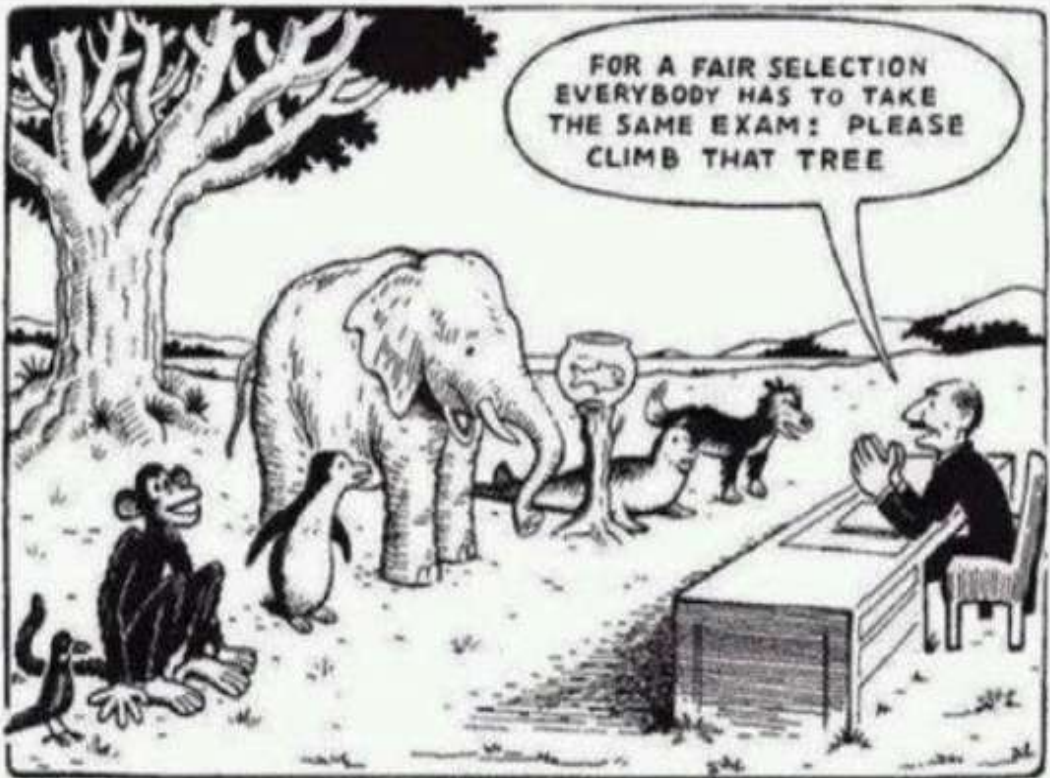
	iOS	link	PC	link	Chrome extension
Font	Open Dyslexic	X	Dyslexie	X	Helper Bird
Reading	Bookshare	X	Bookshare	X	AT toolbar
	Accessibility (Speak Selection)	X	Natural Reader	X	Mercury Reader
	Claro Scan Pen	X	Capture2Text	X	
	Prizmo-Go Ocr Reader Free	X			
Writing	Easy Dyslexic Aid	X	Speechnotes	X	Speechnotes x voice typing
	Accessibility (Speech to Text)	X	Ginger	X	Ginger
	Snaptype	X	Ghotit	X	Scribe
	Ginger Page	X			
Math	The Calculator	X	Virtual Manipulatives	X	Calculator
	Newton- Talking Calculator	X	webmath.com	X	Smart Voice Calculator
	PhotoMath	X			MB Ruler
Study	Quizlet	X	Quizlet	X	Quizlet
	Voice Recorder	X			

Agenda in chart form (Excel document with active links available for download)

<https://geon.github.io/programming/2016/03/03/dsxyliea>

negay, Jo n anp Bop w n froa w a k. "W hatwo ou i e
t o a op op y?, Boq ske John. "I do n'tk ow, J onh r ed ed,
hatwo lpyo li e ot go?" It in I mi ten o yw at c g a
o i nTV, e e ia l fiw e c av es me do ron. "Wow,"
saip Jonh, "Po c n! hat g eati Let's e k e
uq r t e c goa d o s e fim y m the gh s o he stalt im e wetn
s in g." "Look," hey e ep, "af l lpoxa pit's r il e
e R pgenqocker! M yf a r o te!" "Gr eat!" Bopsho u eq, "Le t'sc k
udi i r wa c o vea nqs e woh ti truns
nt hem e tou."

Trying to read this passage, you will experience the kind of difficulty a dyslexic reader faces when deciphering normal typeface. Not so easy is it?



Our Education System

"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid."

- Albert Einstein

EmilysQuotes.Com



If a child can't learn the way we teach, maybe we should teach the way they learn.

-Ignacio Estrada-



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Assistive Technology for iOS

- OpenDyslexic is an open source font created to increase readability for readers with dyslexia.
- The typeface includes regular, bold, italic, and bold-italic styles. It is being updated continually and improved based on input from dyslexic users.
- OpenDyslexic is **free** for Commercial and Personal use.

How to get it on ios

iOS

- To use in apps:
 - Install the package located below, directly from your device: <https://app.box.com/OpenDyslexiciOS>

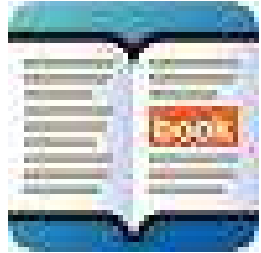
<https://app.box.com/OpenDyslexiciOS>

Bookshare



- Free
- World's largest online accessible library of copyrighted content for people with print disabilities
- Sped teacher can sign up students and manage their downloads for school
<https://www.bookshare.org/signUpOrganization>
- Robot voice
- <http://www.bookshare.org>

Bookshare using iOS



- Read2Go app connects directly to Bookshare® for immediate on-the-go reading; books and periodicals and manage in a bookshelf. Read2Go reads DAISY 2.02 and 3.0 materials. \$19.99.



- Voice Dream Reader is a general purpose voice reader fully integrated with Bookshare. It can also be used to listen to PDF, MS Word, ePub, and text files through Dropbox and Google Drive. \$9.99; Voice Dream Reader Lite, can be downloaded for free.

** New Captivoice Free can read lots of things including Bookshare (Released Oct. 10) "Best Special Needs Solution of 2017"



Built in speak selection Accessibility iPad ios

- Launch the **Settings app** from the Home screen of your iPhone or iPad.
- Now tap on **General**.
- Scroll down and towards the bottom, tap on **Accessibility**.
- Tap Speak then turn **Speak Selection** option **On**.
- You can further customize the speed at which your iPhone or iPad reads the text and the dialect it uses. Once you're done, just tap the **Home button** to return to the Home screen.
- Hold your finger down on the text you'd like it to read to pull up the copy/paste menu.
- Highlight the text and in the text edit popup, select **Speak**.

Picture to text iOS



- Claro Scan Pen \$9.99
 - Take a photo of the text or select a photo of the text document from your camera roll.
 - Highlight with your finger or stylus which section of text you want to hear spoken to you.
 - Listen as Claro ScanPen instantly reads the text back to you using a human quality voice in a language of your choice.

Prizmo go-Instant text OCR



- Free
- Allows you quickly grab printed text with the camera. After text is recognized in a blink of an eye, you can interact with it in many useful ways, like moving it to different documents or having it read to you.
- Works without an internet connection

Dyslexia Aid \$1.99



- Easy Dyslexia Aid helps with spelling and literacy with the aid of the 'OpenDyslexic' font and color overlays. This is wonderful application and addition to the assistive technology market as it can help dyslexic learners with specific cognitive difficulties making it easier to process particular kinds of information.
- Can do a sentence at a time. Will only speak back one word entries. Great for younger students.

Speech to text with siri on ios

1. If you're on iOS 11, enable Dictation (Settings App > General > Keyboards > Enable Dictation > ON).
2. Must be online to work.



SnapType Pro \$4.99 ios

- With SnapType, students can take a picture of their worksheets, or import worksheets from anywhere on their device. They can then use keyboard to add text documents and print, email, or share their creations. It is the perfect solution for kids, and even adults, who struggle with their handwriting (and spelling).
- -Store unlimited worksheets within the app
- -Draw lines on worksheets
- -Whiteboard Filter—Turn colored worksheets into black and white to save ink when printing.
- -Colored Backgrounds – Some users with impaired vision may find it difficult to read traditional worksheets with black text on a white background. Now you can change the background to a variety of colors for better contrast and easier reading.

Ginger Page: English Grammar & Spell Checker + Translator ios



- **Grammar Checker.** Ginger Page features advanced proofreading that automatically corrects grammar and spelling mistakes.
- **Sentence Rephraser.** Explore different ways to express the text you just wrote. Communicate better and with style for business or fun.
- **Translator.** Use Ginger translation to unlock 60+ languages.
- **Dictionary and Synonyms.** Access contextual synonyms and definitions.
- **Text Reader.** Utilize the reader feature to hear your text read back to you.
- **Favorites.** Save text to favorites and add a personal dictionary that is synchronized across all of your iOS devices
- **Quick share.** Quickly share your text to your favorite apps.
- **Rich text formatting.** Stylize your writing by adding bold, italics and underlining.
- **Optimized for Tablet workflow.** Special 2 pane view enables a side-by-side working environment.
- **Cost: \$3.99**

The Calculator - Free



- The Calculator combines the Standard & Scientific calculator, with extensive & easy functionality.
- Great options in a still very simple look.

Newton - the future of the calculator (Free)



- Use your voice or the custom keyboard to input calculations and unit conversions easily and quickly. Mix units, parentheses, math functions in a single computation.
- Simple to use. Great for students who have trouble transcribing from the board.

PhotoMath (Camera calculator) Free



- Photomath provides:
 - Camera calculator
 - Handwriting recognition (NEW)
 - Step-by-step instructions
 - Smart calculator for entering fraction, exponents, etc.

Quizlet on ios



- Put your memory to the test with Learn
- Memorize tough vocabulary like a pro with Flashcards
- Race against the clock in a game of Match
- Show you're ready for an in-class quiz with Test
- Share study materials with classmates (if you're a student) or your students (if you're a teacher)
- Listen to pronunciations when you're learning foreign languages
- Enhance your studying with images and audio
- Play Quizlet LIVE in class

QuickVoice Recorder Free



- Now with super-useful VOICE REMINDERS!!! QuickVoice is the most popular, full-featured iPhone/iPad/iPod voice recorder available. Record ideas, voice memos, voice email, dictation, lists, meetings, classes, or entire lectures! For professional, educational, and personal use.
- Free version only allows for up to 5 minutes per recording.



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Assistive Technology for PC

Dyslexie font



- Special font that is easier to decode for dyslexic students.
Free download home edition:
<https://www.dyslexiefont.com/en/home/>
- To use in new Chrome...add Force Font extension, then add dyslexie font to the list
 - Dyslexie must be on computer.
 - Biggest game changer for my dyslexic daughter



Bookshare



- Free
- World's largest online accessible library of copyrighted content for people with print disabilities
- Sped teacher can sign up students and manage their downloads for school
<https://www.bookshare.org/signUpOrganization>
- Robot voice
- <http://www.bookshare.org>

Free Software Download Text-to-speech

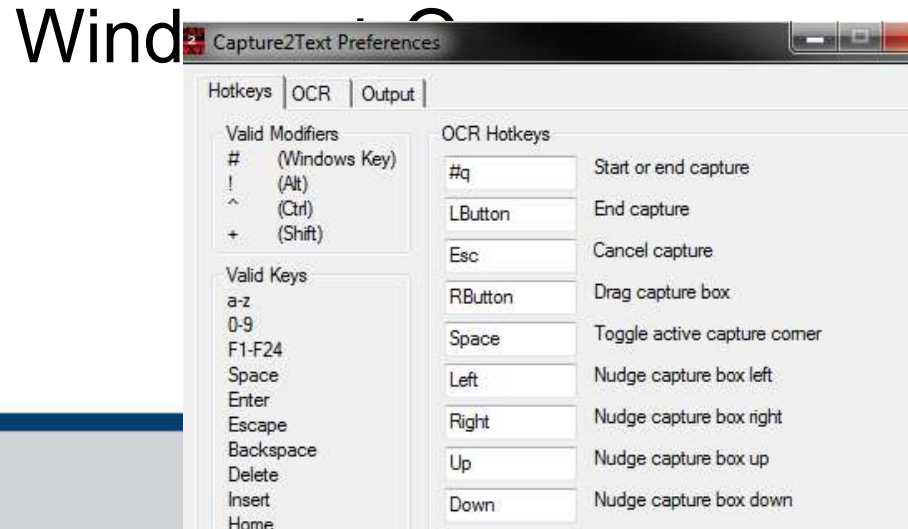


- Natural Reader 15.0 [Natural Reader 15.0](#)
 - Free download
 - Works as a hovering toolbar
 - Highlight text to be read

Capture2text



- <http://capture2text.sourceforge.net/>
- Free OCR technology that allows embedded text to be recognized then translated to speech another reader (i.e. Natural Reader)
- Use “hot keys” to select text by drawing a box around it



Free Web-Based Speech-to-Text

- Speech notes <https://speechnotes.co/>
 - Chrome browser
 - Autosave
 - Folder to hold “notes”
 - Email, Upload to Google Drive, Download as .txt, Word document .doc, save session, print
 - Now with built in text to speech!!

Ginger

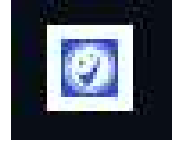


- Great for writing/grammar and spelling
- Contextual Grammar, Spell Checker, Synonyms, Translations and Dictionary!
- Free extension for chrome
- Premium \$90 year

Why Go Premium

Features	Free	Premium
Unlimited Grammar Checker	×	✓
Translations in 40 Languages	✓	✓
Definitions	✓	✓
Ginger for Browsers	✓	✓
Sentence Rephraser	×	✓
Text Reader	×	✓
Practice on your mistakes	×	✓
Analysis of your errors	×	✓

Ghotit! \$199 for 10 from Windows Store



Text Errors Correction

- *Spelling*
- *Grammar*
- *Misused Words*
- *Split and merged words*
- *An integrated dictionary*
- *Read out loud*

Word Prediction

Proofreading

Reading

Glencoe Virtual Manipulatives

- http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html
- Select by grade from Pre-K to 8
- Select work background from number lines to coordinate grid
- Select manipulatives from centimeter cubes to protractors

Webmath.com

- <http://www.webmath.com/>

Generates answers to specific math questions and problems, as entered by a user, at any particular moment.

Shows the student how to arrive at the answer.

Using quizlet to study

- Millions of sets already created
- Flashcards will speak (great for foreign language)
- Star flashcards to study what you need
- Learn, spell and test features
- Individual games features
- Quizlet “**Live**” in the classroom



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Assistive Technology using Google Chrome Extensions

Helper Bird



- extension that overrides all fonts on the webpage with the award-winning OpenDyslexic font and changes the page to be more easily read.
- You can switch it on and off at any time.
- You can now change the size of the font!

AT bar



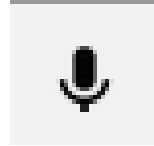
- change the look and feel of webpages
- increase and decrease font sizes
- have text read aloud
- use colored overlays
- readability and a dictionary to aid reading
- Spell check forms and try word prediction when writing.
- It is a simple tool which is available for most popular browsers.

Mercury Reader

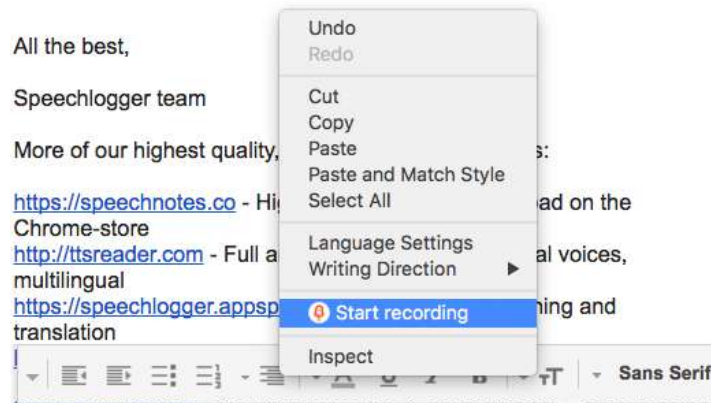


- The Mercury Reader extension for Chrome (formerly Readability) removes ads and distractions, leaving only text and images for a clean and consistent reading view on every site.
- Mercury Reader

Speechnotes x voice typing



- Microphone button right to the Chrome's address bar functions as start / stop voice recognition.
- In any text-field, right-click on the mouse, and then, in the drop-down menu: "Start / Stop Recording"



Ginger



- corrects 30 different types of grammar errors
- provides spelling corrections that are 6 times more accurate than other leading programs
- spelling and grammar corrections are based on the context of your text
- allows you to correct multiple mistakes with a click.
- works with speechnotes and in Outlook

Scribe (Free acct. required)



- While browsing the Web, click the Button to load the Scribe Toolbar on webpages and use it to:
 1. annotate articles with multiple styles (highlight, bold, underline, etc.) and colors to flag critical passages.
 2. adding sticky notes that anchor to particular parts of articles.
 3. categorize your annotations by type and color with dynamic legends
 4. share, tag and save articles to your own personal Library in the cloud

Calculator



- Compact and available when you need it
- Remembers your previous calculation when re-opened
- Use the keyboard number pad for calculations
- Copy results from the display to the clipboard
- Enter key for "=" and "c" for clear
- It's Free!

MB-Ruler



- an overlay to measure distances and angles on web sites and includes
 1. a triangular ruler to measure distance and angles
 2. a horizontal and vertical ruler with help lines
 3. a screen grid that divides the web site in equal rectangles

Quizlet



- Over 50 million free study sets
- 6 study modes including Flashcards, Scatter, Speller, Learn, Test, and Space Race
- Audio in 18 languages
- Easily share study content with your classmates

Great resources

- **Free Technology Toolkit for UDL in All Classrooms**
 - <http://udltechtoolkit.wikispaces.com/home>
- **Chrome as AT (apps and extensions)**
 - <https://mmaptp.com/chromeat/>
- **Apps for Dyslexia (iOS and Android and more)**
 - <http://www.callscotland.org.uk/downloads/posters-and-leaflets/>
- **Tech Thursday AT Blog**
 - <http://www.dyslexiaaction.org.uk/tech-thursday>

Thank you!

- **Contact information**

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